

WHAT IS CLAIMED IS:

1. A combustion-engined setting tool for drifting fastening elements in an object, comprising a combustion chamber (13); a fuel source (11); a fuel conduit (12) connecting the fuel source (11) with the combustion chamber (13) for feeding fuel thereinto; and at least one metering device (30) for metering a predetermined amount of fuel for effecting a setting process, the at least one metering device (30) including at least one metering chamber (31); means for adjusting a metering chamber volume for metering the predetermined amount of fuel, and a displaceable piston body (34) for a pulsed ejection of fuel from the metering chamber (31).

2. A setting tool according to Claim 1, wherein the metered chamber volume is adjusted by adjusting an initial position (28.1, 28.2, 28.3) of the displaceable piston body (34).

3. A setting tool according to Claim 2, wherein the metering device (30) comprises a static body (35), and the metering chamber (31) is enclosed between the displaceable piston body (34) and the static body (35),

and wherein adjusting means comprises an adjustment device (50) for adjusting the initial position of the displaceable piston body (34).

4. A setting tool according to Claim 3, further comprising means (22.1) for sensing temperature of a surrounding air and cooperating with the adjustment device (50).

5. A setting tool according to Claim 3 wherein the adjustment device (50) is manually operable.

6. A setting tool according to Claim 5, wherein the manually operable adjustment device (50) comprises an adjusting screw (51).

7. A setting tool according to Claim 1, further comprising a control device (20) for the metering device (30); and sensor means for sensing at least one of parameters of the setting tool and of environment and for communicating the at least one parameter to the control device (20), the control device (20) providing for adjustment of a volume of the metering chamber (31) for each operational cycle dependent from the sensed, at least one parameter.

8. A setting tool according to Claim 1, wherein the displaceable piston body (34) has opposite end surfaces (36, 36.1) which are subjected to at least one of hydraulic pressure and pneumatic pressure, the piston body (34) being displaced in a pulsed manner upon the at least one of the hydraulic pressure and the pneumatic pressure acting on a respective one of the end surfaces (36, 36.1)

9. A setting tool according to Claim 8, further comprising actuation means (70) formed as at least one of hydraulic valve means and pneumatic valve means for subjecting the opposite end surfaces (36, 36.1) to the at least one of hydraulic pressure and the pneumatic pressure, respectively; and at least one of a control device (20) and a switch (24) for controlling the actuation means (70).

10. A setting tool according to Claim 3, wherein the metering chamber (31) has an inlet (32) and an outlet (33), and valve means (62, 63) provided at the inlet (32) and the outlet (33), the valve means (62, 63) providing for flow of fuel only in a direction to the combustion chamber (13).

11. A setting tool according to Claim 3, wherein the displaceable piston body (34) is formed as a pot-shaped piston a pot space (37) of which forms the metering chamber and is formed for sealingly receiving the static body (35).

12. A setting tool according to Claim 10, wherein the inlet (33) is formed by an axial through-channel (64) formed in the static body (35) and having at an end thereof remote from the metering chamber (31) a nozzle opening (65).

13. A setting tool according to Claim 12, wherein the metering device (30) comprises valve means for controlling flow through the axial through-channel (64) and including a valve rod (69) displaceable through a passage (40) formed in the displaceable piston body (34) and a pot space (30) thereof and having a valve head (68), and a valve seat (67) provided at an opening of the through-channel (64) adjacent to the metering chamber (31) for sealingly receiving the valve head (68).